

American Vegetable Grower

DECEMBER • 1956



Witloof Chicory — for the
Winter Market

Rhubarb—for Early Spring

Vegetable Areas:
California's Imperial and
Coachella Valleys

woodruff seed

Sweet Corn



VICTORY GOLDEN HYBRID (Market Gardeners' Strain)

Designed especially for the market gardener, this new strain of Victory Golden gives promise of meeting with the same phenomenal success as its predecessor, which is one of the most outstanding varieties being used by canners and freezers throughout the country today. The MG strain of Victory Golden matures in about 84 days. Ears are approximately $8\frac{1}{2}$ inches long with 16 to 18 rows . . . slightly larger and longer than the processing strain.

Kernels are uniformly golden yellow and the quality is excellent. The ears are afforded good protection from ear worm damage by a heavy husk which extends well beyond the tip of the ear. Plants are 7 to $7\frac{1}{2}$ feet tall with few suckers and a strong root system. Yields are outstanding.

This strain is especially valuable for road side stands. Once your customers taste Victory Golden, they will be back for more. Order now from your Woodruff Branch Office.



F. H. WOODRUFF & Sons, Inc.

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DECEMBER,

AMERICAN VEGETABLE GROWER

REG. U. S. PAT. OFF.
(Commercial Vegetable Grower)

Vol. 4 December, 1956 No. 12

FEATURED IN THIS ISSUE

Cover photograph: Courtesy Cleveland Greenhouse Vegetable Growers Co-operative Assn. The annual meeting of the National Association of Greenhouse Vegetable Growers is being held in co-operation with the VGAA convention. See page 10 for program.

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AMERICAN VEGETABLE GROWER

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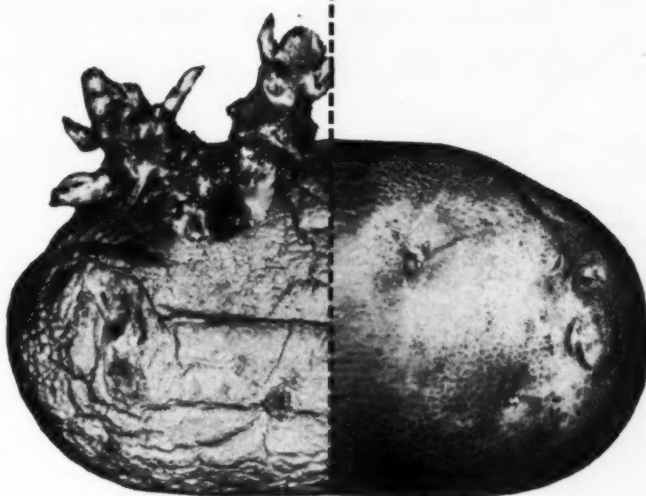
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DECEMBER, 1956

JOHNSON'S WAX WITH SPROUT INHIBITOR PREVENTS SPROUTED SPUD LOSSES



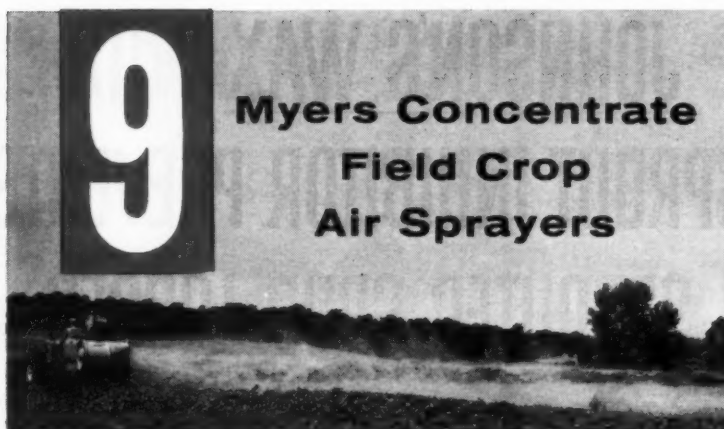
Potatoes with live sprouts are a dead loss

Potatoes taken out of storage for winter marketing become completely unsalable if sprouting occurs. Guard against such disastrous losses. Use Johnson's Wax with Sprout Inhibitor. An effective sprout inhibitor emulsified in the wax keeps potatoes from sprouting for 60 days or more after treatment.

Johnson's is easy to apply and inexpensive to use because a little goes a long way. It makes your potatoes keep better and look better. That thin wax coat prevents shrinkage, discourages rot. Potatoes treated with Johnson's bring extra profits to grower, packer, shipper, jobber and retailer. Remember, today's shoppers demand waxed potatoes. To "give the lady what she wants," contact your local Johnson distributor right away, or write: S. C. Johnson & Son, Inc., Agricultural Waxes, Dept. AVG-12, Racine, Wisconsin.

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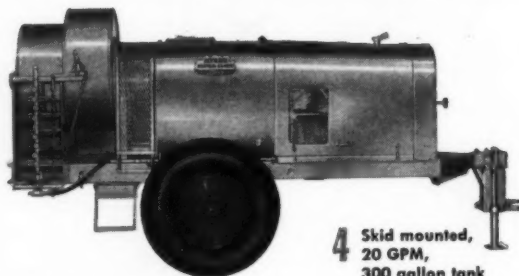




Myers Concentrate Field Crop Air Sprayers

Give every grower CUSTOM SELECTION

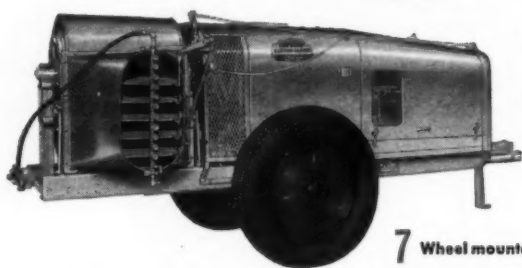
- 1 Wheel mounted, 20 GPM, 300 gallon tank
- 2 Wheel mounted, 20 GPM, 400 gallon tank
- 3 Wheel mounted, 20 GPM, 500 gallon tank



- 4 Skid mounted, 20 GPM, 300 gallon tank

- 5 Skid mounted, 20 GPM, 400 gallon tank

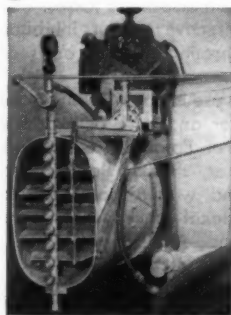
- 6 Skid mounted, 20 GPM, 500 gallon tank



- 7 Wheel mounted, 20 GPM, 300 gallon tank

- 8 Skid mounted, 20 GPM, 300 gallon tank

- 9 Concentrate attachment for any high pressure sprayer



More high velocity air and a high pressure spray pump that delivers droplets of just the right size is the perfect combination that makes Myers Concentrate Sprayers leaders in their field. Up to 45,000 cubic feet of air per minute moving 90 miles per hour covers every plant from leaf tip to ground level with an even, effective cover of spray material. Results: cleaner, more profitable harvests at lower costs season after season.

Myers complete sprayer line
includes a full line of

boom sprayers



POWER SPRAYERS WATER SYSTEMS AND IRRIGATION PUMPS

THE F. E. MYERS & BRO. CO., ASHLAND, OHIO • KITCHENER, ONTARIO

LETTERS TO THE EDITOR

Potatoes in South Dakota

Dear Editor:

I just want to let you know I am receiving *AMERICAN VEGETABLE GROWER* regularly. The publication has vastly improved its articles since I first subscribed and the September issue on melons covered every possible phase.

This county, Clark, rates 45th in the United States in the production of potatoes, and potato harvest is in full swing here in October. Our largest potato grower, Charles Larkin & Son, annually plants around 500 to 600 acres of mostly Pontiac. Now the La Soda variety is being more widely planted because of its larger size and fairly smooth skin. It is a white potato; the Pontiac is red.

Many potato varieties have been planted here in the past but the growers have wanted a good shipping potato. Nearly all the potatoes grown here are shipped out of the state and some even go to Hawaii, Cuba, etc.

Potato fields are dusted or sprayed by plane or dusted by ground equipment. Dusting or spraying here is absolutely a necessity to insure a decent crop of potatoes. I have watched both biplanes and monoplanes dust potato fields early in the morning or late in the evening and have seen many of them fly so low that they landed for more dust with potato vines tangled in their landing gear.

Two companies at Clark have potato washers and one grower, Larkin, even has a waxer to wax shipping potatoes. They think they keep better waxed as no air can enter the potato.

Larkin has two potato pits, each with a capacity of 50,000 bushels. At the peak of the shipping season, a small loading crew can load a refrigerator car with 100-pound sacks of potatoes, U. S. No. 1, in 20 minutes, stacking the sacks up over their heads in the car. If anyone thinks throwing those 100-pound sacks up over his head is easy, let him try it for a few days. He'll soon change his mind!

The elevator, graders, washers, and waxers are all electrically operated but after the elevator brings the sacks up from the pits, when it's time to pile them in the car, that's when the work starts!

Clark, S. D.

Herbert F. Thom

Wants Honey Rock

Dear Editor:

Enclosed find \$2.00 for renewal subscription to *AMERICAN VEGETABLE GROWER*, a very informative magazine, we think.

I am wondering if you can inform me as to where to purchase Honey Rock muskmelon seed which is so highly praised on page 14, September, 1956, melon issue. Ted E. McTigue likes Improved Honey Rock, Joe Kyle thinks his Honey Rock is so good, Ed Lull and Dan Kalina are all of the same opinion. An address where they buy their seed would be most welcome.

Loveland, Colo.

Ralph S. Graybill

Honey Rock is available from most of the leading seed houses. Try Associated Seed Growers, Inc., 205 Church St., New Haven 2, Conn.; W. Atlee Burpee, Philadelphia 32, Pa.; Joseph Harris Co., Moreton Farm, Rochester 11, N. Y.; Ferry-Morse Seed Co., Detroit, Mich.; Northrup, King & Co., 1500 Jackson St., N. E., Minneapolis 13, Minn.; F. H. Woodruff & Sons, Inc., Milford, Conn.; and Lawrence Robinson & Sons, Modesto, Calif.—Ed.

AMERICAN VEGETABLE GROWER

DECEMBER, 1956

BIRD VITA-GREEN



the pots
disintegrate
BUT...
your profits
multiply

Ideal for Annuals, Vegetables, Specialties

These Bird Vita-Green Pots have been dug up after transplanting to show how the pots disintegrate, allowing complete root penetration. But while the pots fade away, the plants grow stronger and healthier — and so do your profits. Here's how:

Bird Vita-Green Pots enable you to space out your prime plants easily to allow room for heavier top growth. They are ideal for annuals and vegetables, and for all specialties grown by florists, nurserymen and market gardeners. Because the whole pot is planted, there's no transplant shock —

plants are more luxurious. Your own transplanting is simplified — no root ball to remove, no empty pots to cart away. And for re-sale, Bird Vita-Green Pots are beautifully shaped, finished in an attractive green color.

Roots are contained from 12 to 14 weeks. Pot disintegrates after transplanting. The "Vita" nutrient feeds plant as the pot disintegrates.

Look at the low prices! You can easily afford to expand your whole line of potted plants. Order from your distributor or send coupon for complete information.

GET THE WHOLE FLOCK OF BIRDS



VITA-BANDS:

Variety of sizes and types. Eliminate transplant shock.

PERENNIAL POTS:

Economical for potting gums, perennials, bulbs, shrubs, roses.

VITA-M POTS:

Inexpensive molded pulp pot for long-term growing. Easily stored.

GRO-TAINER:

Molded flat for merchandising twelve plants.



PRICES

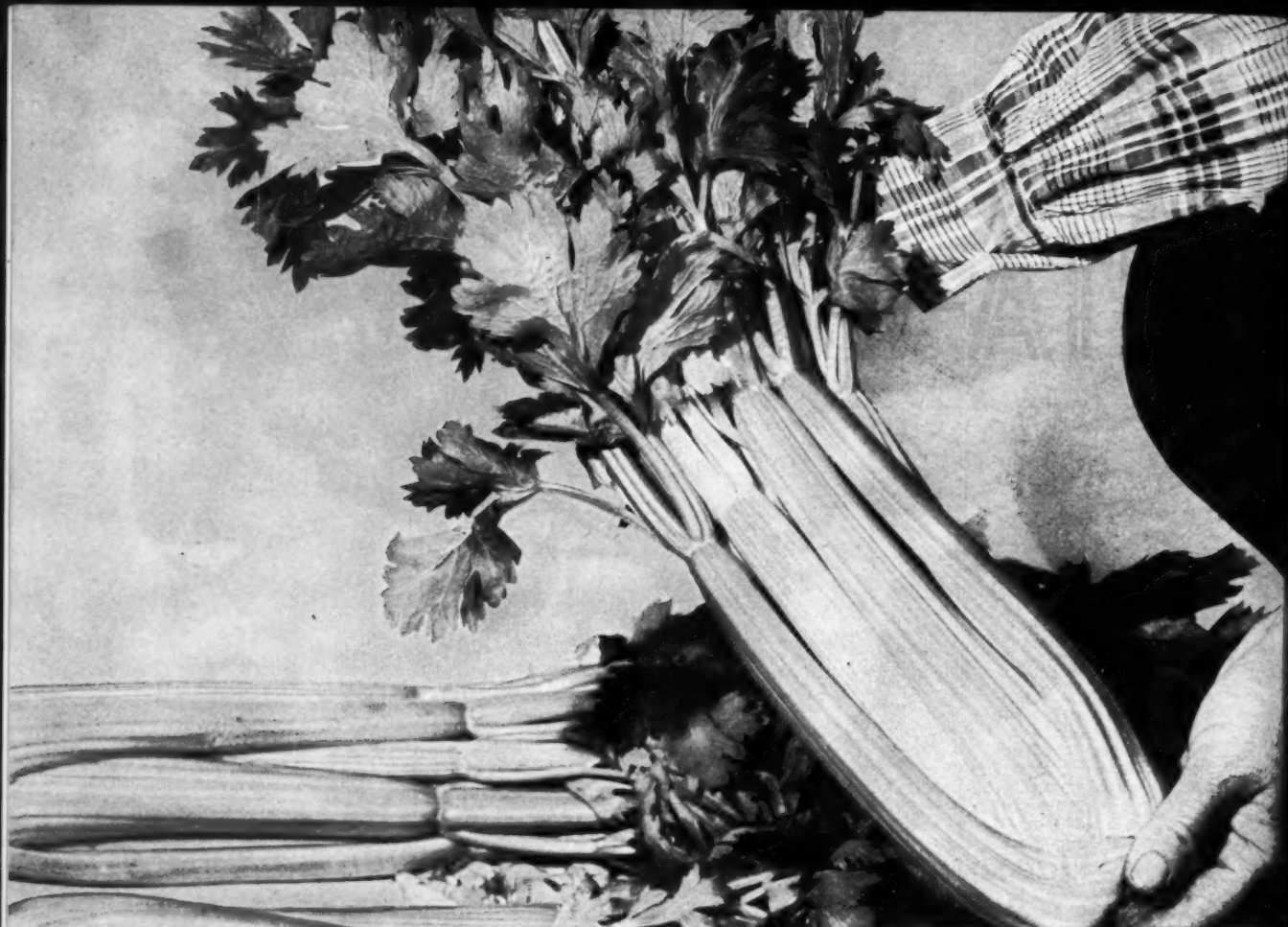
Size	2 3/4"	2 1/2"	3"	3 1/2"	4"
List Price per Thousand	\$7.10	\$8.80	\$12.40	\$14.30	\$16.75
Quantity Packed Per Case	2000	2000	2000	1000	1000
Gross Weight (Lbs.) Per Case	17	22	31	20	31

See your distributor for delivered prices

Bird & Son, inc., Dep't AVG-6
East Walpole, Mass.

Please send free literature containing complete description, prices and growing instructions for Bird Vita-Green Pots.

Name _____
Street & No. _____
City & State _____



The variety with eye-appeal and table quality that stimulates repeat sales

TAILOR-MADE FOR TODAY'S DEMAND

Tall Utah 52-70 Celery

Today, buyers are demanding a green celery that combines both size and compactness. To meet this demand, Ferry-Morse developed the popular strain, *Tall Utah 52-70 Celery*.

This celery with its vigorous 24" to 26" plants, has high hearts and high rib count. Thick, rounded stems are 9" to 11" long to joint. Heads are tightly shingled and cylindrical, with ideal girth. Color is darker green with more waxy sheen than other Utah strains.

Tall Utah 52-70 gives you a better crop, and by meeting market demands—*gives you a more profitable crop. Order your seeds now.*

FERRY-MORSE SEED CO.

Detroit • Mountain View • Los Angeles • Memphis • Harlingen • Tampa
1856-1956 . . . 100 years of service to the growing industry



TAILOR-MAKING—Ferry-Morse's scientific plant breeding develops varieties best suited to your specific uses and growing conditions. Shown here are isolation cages for pollination control of celery plants.

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WITLOOF CHICORY

—for the winter market

Try growing this gourmet vegetable from Belgium—it sells for 79 cents a pound!

By F. C. COULTER

A WINTER vegetable that is much favored by expensive restaurants is strangely neglected by the average American. In restaurants it is known by the doubly inaccurate name of French Endive; in the produce trade and generally, it is Witloof chicory.

That word Witloof (Witloef) tells the story: it means white leaf and is a Belgian name, so this is the white

For many years connected with Associated Seed Growers, Inc., Mr. Coulter is a well-known writer on vegetable gardening and author of a manual on the subject.

chicory from Belgium, where the idea of forcing blanched heads was developed about a century ago. Growers in France and Holland, a few in England, and still fewer proportionately in this country have taken up this profitable crop, but the Belgians are easily the leaders both in technique and production, growing about 20,000 acres of this special variety of chicory, from which are forced some 50,000 tons of chicons, as the silvery white heads are called.

The U. S. annually imports 1 to 1½ million pounds, and they may be seen in winter at the principal city markets, neatly arranged in blue paper-lined boxes, from which they are retailed in stores at about 79 cents a pound. Though this excellent salad

vegetable is far from new in America, it is little known in the average home. The demand is increasing, however, and such a premium-priced crop might well prove a profitable off-season crop for American growers.

Any soil suitable for carrots will do for Witloof but, as with carrots, it should not be high in nitrogen and should be well-supplied with phosphorus and potash. The Belgian technique is to sow the seed in early summer in rows 12 inches apart, which requires about 3 pounds of seed per acre, thinning the plants afterwards to 6 inches apart in the row. This tight spacing is done to get roots about 2 inches in diameter and weighing about 4 ounces, as only from this size can the best chicons be forced.

The growing plants are very free from pests and require a minimum of attention through the summer. In late fall or early winter they are lifted with a plow to which a subsoil cutter has been attached so as to trim off the tail of the parsnip-like roots and leave them uniformly 8 inches long, the depth of the forcing beds.

The whole plants are then piled in the field, roots in, tops out, to rest and dry for four to six days. Then the leaves are lopped off half an inch from the crown of the root, so as not to damage the growing plant. Malformed roots and any showing the

Courtesy Belgian Government Information
In Belgium witloof is grown in forcing beds in small quonset huts. When pale ivory heads are 6 to 7 inches long, they are lifted carefully from soil and snapped from roots with a twist.

slightest sign of rot (*Sclerotinia*) are thrown aside.

In the Belgian system the forcing beds are often outdoors and about 3 feet wide by 25 feet long. Sometimes they are in sheds and larger, but they are always 8 inches deep. Heating is usually by small stoves and buried hot water pipes, but electric soil heating cables are recognized as being more efficient and easier to regulate.

The roots are stood upright in the bed, close together, then covered with 4 inches of finely sieved, mellow soil with sand added, which is hosed until it sinks down between the roots. They are then covered with more of the same moderately moist soil to a depth of 8 inches. Great attention is paid to the composition of this layer, as its weight and structure affect the size and compactness of the heads. If it should be heavy, the heads will be smaller and tighter; if it should be lightened, as by the inclusion of peat moss, they will be larger and looser.

When the forcing is done outdoors, the beds are topped with a heavy blanket of straw over which curved sheets of corrugated iron are placed, forming a low roof just clear of the straw. These covers above the soil

(Continued on page 21)



THE VEGETABLE AREAS OF AMERICA

California's IMPERIAL

By JOHN C. LINGLE

University of California

BETWEEN the mountains of southern California lie the Imperial and Coachella Valleys, which produce a large part of the vegetables found on grocers' shelves in midwinter. Situated in a deep trough, almost wholly below sea level, the area was once an arm of the Gulf of California. It was cut off from the sea by the growing delta of the Colorado River. The impounded waters dried up and left a vast desert that was a major barrier to the early settlers trekking west.

Many promotional schemes and efforts were made in the latter part of the last century to bring irrigation water into these valleys, which culminated in the breaking of a poorly formed dam in 1905 by the flooding Colorado River. The river flowed unchecked for two years before it was blocked and returned to its proper channel by engineers of the Southern Pacific Railroad who ran whole trainloads of rock into the breach. The waters from this break formed the Salton Sea, which separates the two valleys.

Crops in these valleys are dependent entirely on irrigation since rainfall averages only 2 to 3 inches per year. The irrigation water is carried into these valleys by the vast system of the All-American Canal, designed and administered by the U. S. Bureau of Reclamation.

The climate of this area is typically subtropical desert. Summer temperatures range up to 125° F. and humidities are usually low (10 to 25%). Because of the hot summers, most vegetable production is carried out in the winter and early spring in rotation with summer-grown, heat-resistant field crops. The winters are short and mild with plentiful sunshine and little frost, and crop growth is rapid.

The soils of these valleys vary widely from heavy clays to reclaimed sand dunes. The varied soil types present a number of production problems. The heavy soils somewhat limit the types of crops which can be successfully grown and

are particularly troublesome from the standpoint of "salt" accumulation. The light, sandy soils have low water-holding capacities and require large amounts of precious water for most shallow-rooted vegetables.

Mostly cool-season crops which will withstand light frosts are pro-



Tomatoes under hotcaps near El Centro. Fields of 160 acres protected in this manner are not uncommon in the area.

Packing cantaloupes near Brawley (right). First melons in eastern markets in the spring are shipped from the Imperial Valley.



Seeding lettuce in the Imperial Valley. Two rows are fertilized and seeded on 42-inch beds.

duced in the winter, but special effort is made to produce high-priced, out-of-season crops such as tomatoes and squash. The production of these crops is concentrated in the warmer parts of the valleys, centering around Niland and Oasis.

Lettuce is the leading vegetable crop, most of which is grown in the El Centro-Brawley areas by some of the same grower-shippers who produce the famous Salinas Valley lettuce in the summer months. Around 30,000 acres are produced annually. The near-by Palo Verde Valley (Blythe) contributes to this acreage. The slow-bolting Great Lakes strains are grown for late fall

and early spring markets while the cold-resistant Imperial strains are shipped in midwinter.

Over 8000 acres of carrots are produced every year in the Holtville-El Centro area, mostly of the Imperator type. Smaller acreages (500 acres) are produced in the Coachella Valley. The bulk of this crop is now prepackaged at the modern packing plants for shipment to eastern markets.

Early dry onions are being planted in larger acreages since the introduction of the early hybrids such as Granex and Early Crystal 281 which flourish under the cool weather and short days. About 1500

AMERICAN VEGETABLE GROWER

RIVERSIDE

CALIFORNIA

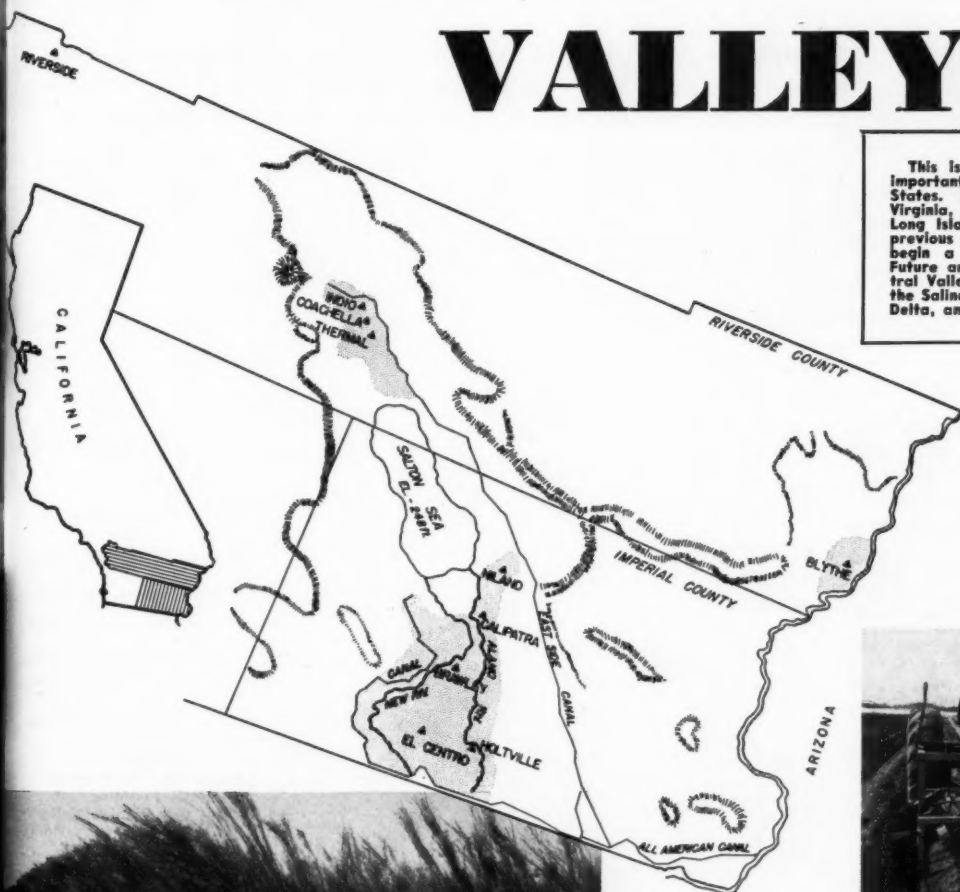
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DECEMBER,

AL COACHELLA VALLEYS

This is the ninth of a series on the important vegetable areas in the United States. New Jersey, Florida, Eastern Virginia, Arizona, Mississippi, Louisiana, Long Island, and Maine were visited in previous articles. With this article we begin a vegetable tour of California. Future articles will take us to the Central Valley; the Coastal Areas (including the Salinas Valley), and the South Coast, Delta, and Tulare Basin.—Ed.



Map of Riverside and Imperial Valleys of California, showing the vegetable areas in shaded dots. The biggest shaded area is the Imperial Valley, with the Coachella Valley just across the Salton Sea. At extreme right, around Blythe, is the Palo Verde Valley. Inset map of California shows location of the counties in relation to the rest of the state.



Bed-shaper with attached "side-hill" planters planting sweet corn in the Coachella Valley. Beds are sloped with the broadside to the south to warm the soil. Salts from irrigation water accumulate at crests, so plant rows are placed half-way up the slopes to avoid this.



Muskmelons planted under hotcaps near El Centro during winter are protected by windbreaks sloping southward over the rows. Windbreaks are made out of kraft paper and brush wired together.

acres, concentrated near El Centro, are produced annually.

From 500 to 1000 acres each of cabbage and broccoli are grown near El Centro, mostly for the western markets. Danish types of cabbage, and early or medium strains of broccoli predominate.

The warm-season crops are har-

vested either in the late fall, after frosts have killed the crops in the northern areas, or in the early spring before other areas come into production. The late fall harvest frequently progresses into midwinter in some areas. Tomatoes, peppers, eggplant, and summer squash are the main crops shipped. These crops are

field-seeded in late August, and harvest begins in mid-November.

Extensive plant protection measures are used during the winter to help produce enough heat near the plant for proper growth and fruit development. Most of such protection is provided by kraft paper, placed at an angle toward the south over the plant row. This paper is held in place by means of wire and "brush"—arrowweed or date palm fronds.

The warmer, higher slopes near the edge of the valley are utilized to provide cold air drainage away from the crops on frosty nights. The temperature in these areas usually remains above freezing, while a few

(Continued on page 18)

Program of

VGAA CONVENTION



Civic Auditorium at Grand Rapids, Mich., where VGAA convention sessions will be held.

48th Annual Meeting of Vegetable Growers Association of America
In Co-operation With
National Association of Greenhouse Vegetable Growers

JOSEPH S. SHELLY, Secretary

528 Mills Bldg., Washington 6, D.C.

Potato Section

Black and Silver Room, Civic Auditorium
George Tallman, Presiding

- 9:30 "Potato Variety Trials"—N. A. Thompson, Michigan State University.
- 10:00 "Crop Rotation and Cultural Studies in Wisconsin"—John A. Schonemann, University of Wisconsin.
- 10:30 "Mechanization in Harvesting and Storing Potatoes"—E. Wheeler, Michigan State University.
- 11:00 "Disease Control in Potatoes"—William Hooker, Michigan State University.

Black and Silver Room, Civic Auditorium
H. A. Reiley, Presiding

- 2:00 "Long Storage of Potatoes with Irradiation—Don Isaleh, Michigan State U.
- 2:30 "Getting Quality Potato Chips"—Ora Smith, Cornell University.
- 3:00 "New Uses of Potatoes"—H. H. Treadway, USDA, Philadelphia, Pa.
- 3:30 Panel on "Booster Ideas for the Potato Industry."
Chairman: Leyton Nelson, Michigan State University.
Panel Members:
Joseph Harrington, Ext. Spec., Michigan State University.
James Kennedy, Iowa Potato Grower.
Harold Simons, Secretary, Wisconsin Potato Growers Association.
Clarence Perkins, Michigan Grower.
George Tallman, Pennsylvania Grower.

Black and Silver Room, Civic Auditorium
Walter F. McCaleb, Jr., Presiding

- 7:30 "Farm Policy Through the Eyes of a Potato"—Arthur Mauch, Michigan State U.
- 8:00 "Potato Legislation"—H. J. Evans, First Vice-President, VGAA.
- 8:30 "Potato Prospects From Here on Out"—A. E. Mercker, USDA, Washington, D.C.

Greenhouse Section

Room F, Civic Auditorium
E. B. Wright, Jr., Presiding

- 9:30 "Tomato Diseases"—Dr. L. J. Alexander, Ohio State University.
- 10:00 "Determining Fertilizer Needs of Greenhouse Crops"—Dr. G. F. Warren, Purdue University.
- 10:45 "Factors Affecting Flowering and Fruiting"—Dr. S. H. Wittwer, Michigan State U.

2:00 Tour of Grand Rapids Area Greenhouses—Assemble in Lobby of Pantlind Hotel.

- 7:30 "Better Marketing of Greenhouse Vegetables"—Jack Tuuk, Michigan State U.
- 8:00 Panel on "Better Marketing."
Chairman: Ellis Hoag, Elyria, Ohio.
Panel Members:
Clinton Seitz, Cincinnati, Ohio.
Jack Tuuk, Michigan State University.
Keith Owen, Jr., Terre Haute, Ind.
Mrs. Miriam Kelley, Michigan State U.
Robert Young, Exp. Sta., Waltham, Mass.
Pat O'Toole, Cleveland, Ohio.
- 9:15 Business Meeting.

Muck Crops Section

Room G, Civic Auditorium
Paul Petran, Presiding

- 9:30 "Fertilizer and Soil Management of Muck Crops"—J. F. Davis, Michigan State U.
- 10:00 Symposium on "How Growers Do It."
Onions: Duane Baldwin, Michigan Grower.
Head Lettuce and Carrots: Harold Gatzke, Wisconsin Grower.
Celery: George H. Wedgworth, Florida Grower.
Farm Equipment: Ernest Munter, Agri. Engineer, Wm. Gehring Co.

THURSDAY AFTERNOON—NOVEMBER 29

General Truck Crops Section

Red Room, Civic Auditorium

John Wickham, Presiding

- 2:00 "Treatment to Control Soil Insects"—Gordon Guyer, Michigan State University.
- 2:30 "Factors to Consider Before Purchasing Irrigation Equipment"—B. H. Kidder, Michigan State University.
- 3:00 "New Herbicides in Vegetables"—Stanley Ries, Michigan State University.
- 3:30 "Some Successful Vegetable Practices"—Dr. John Carew, Michigan State University.
- 4:00 "On Guard Against Vegetable Diseases"—Dr. M. B. Linn, University of Illinois.

FRIDAY MORNING—NOVEMBER 30

8:30-9:30 Coffee and Doughnuts, Exhibit Floor
Concession Courtesy, Eastern Railroad Presidents Conference.

General Session

Black and Silver Room, Civic Auditorium

F. Ridgeley Todd, Presiding

- 9:30 "A Rural Problem—Back to the Land, Not to Farm"—Louis Wolfanger, Michigan State University.
- 10:00 Symposium on "New Products for Vegetable Growers."
Pesticides: Keith Barrons, Dow Chemical Company.
Equipment: Paul Young, John Bean Div., Food Machinery and Chemical Corp.
Containers: Robert Blett, American Box Board Company.
Seed: Joseph Robson, Robson Seed Co.
Fertilizers: B. C. Manker, Davison Chemical Company.

FRIDAY AFTERNOON—NOVEMBER 30

Black and Silver Room, Civic Auditorium,
George H. Wedgworth, Presiding

- 2:00 "From Quack Grass to a Garden Valley"—Orville Walker, Michigan County Agricultural Agent.
- 2:30 "Use of Plastics in Vegetable Production"—E. M. Emmert, University of Kentucky.
- 3:00 "Future Challenges in Vegetable Production"—Dr. R. L. Carolus, Michigan State University.
- 3:30 VGAA Business Meeting—Paul B. Ruetenik, Presiding.

FRIDAY EVENING—NOVEMBER 30

7:00 Annual Banquet—Pantlind Ballroom.
Toastmaster: Arthur J. Hannah, Vice-Chairman, Michigan State Agriculture Commission, Grand Rapids.
"Parity Reconsideration"—Dr. D. B. Varner, Vice-President, Michigan State U.
Awards—Dancing.

WOMEN'S AUXILIARY PROGRAM

TUESDAY—NOVEMBER 27

8:00 p.m. Reception—Ballroom, Pantlind Hotel.

WEDNESDAY—NOVEMBER 28

- 8:30-9:30 a.m. Coffee and Doughnuts, with men—Trade Show Floor.
- 10:30 a.m. Business Meeting—Shubert Room, Pantlind Hotel.
- 2:00 p.m. Attend General Session until 3:15 p.m.
- 3:30 p.m. Tour City of Grand Rapids—Assemble in Pantlind Lobby. Price \$1.00.
- 6:30 p.m. Smorgasbord—Supply Men's Entertainment—Ballroom, Pantlind Hotel.

THURSDAY—NOVEMBER 29

- 8:30-9:30 a.m. Coffee and Doughnuts—Trade Show Floor.
- 10:00 a.m. Tour of Furniture Exhibitor's Building—Assemble in Pantlind Lobby.
- 2:00 p.m. Electronic Cooking Demonstration—Tea.
- 7:30 p.m. "Tea House of the August Moon"—Followed by Cards.

FRIDAY—NOVEMBER 30

- 8:30-9:30 a.m. Coffee and Doughnuts—Trade Show Floor.
- 1:00 p.m. Women's Auxiliary Luncheon—Women's City Club—Followed by "Wats Created to Your Personality"

AMERICAN VEGETABLE GROWER

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GROWER



Lorraine Kickasola
Eldora, New Jersey



Shirley Ann Brandt—Imlay City, Michigan



Barbara Ann Seaman—Preston, Maryland

QUEENS...

WHO WILL REIGN AT VGAA CONVENTION

One of these state vegetable queens will be
crowned National Vegetable Queen for 1957



1956 National Vegetable Queen
Ruth Louise Propst—New Brunswick, New Jersey

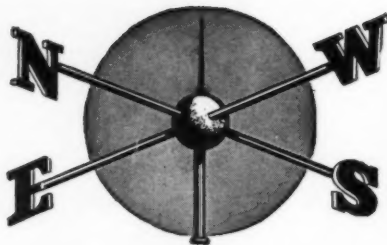


Marilyn Ruth Keller—Mehlville, Missouri



Nancy Paddock—West Richfield, Ohio

STATE



NEWS

- Trace Elements Claim Attention in West
- New Mexico Adopts Modern Methods of Handling Lettuce

Boron Deficiency

OREGON—Boron, a trace element, has become important in the production of celery, beets, and certain other vegetables in Oregon's Willamette Valley.

During a tour of vegetable areas in the valley last summer growers showed how they use boron (borax) to cure cankers in table beets and hollow stem in cauliflower and broccoli. Crops such as turnips and rutabagas get 25 to 30 pounds of fertilizer-grade borax to the acre in some areas. It is believed that lack of boron may be the cause of crown rot in parsnips.

Soil experts warn that although there is growing evidence of boron shortage in Willamette Valley soil, growers should not apply this trace element promiscuously. Too much boron, they say, is as bad as not enough. For example, snap beans—now one of the valley's big crops—are intolerant to more than the smallest amount of boron.

Growers are advised to have their soil tested before applying boron. To supply one pound of boron growers can either apply 10 pounds of fertilizer-grade borax or 5 pounds of polybor-2. Growers are warned not to confuse the latter material with polybor chlorate, a potent weed killer and soil sterilant.—Lillie L. Larsen.

Zinc Deficiency

CALIFORNIA—A widespread soil trouble—zinc deficiency—is being studied by John C. Lingle, assistant professor of vegetable crops at the University of California College of Agriculture at Davis.

It has been found that crops in many areas suffer from lack of this microelement, a nutrient of great importance to plant welfare though needed only in very small amounts. Experimental applications of zinc have boosted yields of sweet corn, beans, and tomatoes.

Since certain soils are able to tie up zinc applications and withhold them from plants, a zinc solution sprayed on the leaves gives better results with far less fertilizer.

Another advantage of foliar spray is that a deficiency can usually be corrected after deficiency symptoms have already developed.

In some instances where tomatoes did not respond to the zinc sulfate spray, a solution of 2 pounds of zinc sulfate solution in 100 gallons of transplant water doubled the growth of plants so treated as compared with unsprayed tomatoes. Fruit set was similarly improved.

Materials being tested are zinc sulfate sprays, zinc chelate spray, zinc oxide dusts, and zinc oxide sidedressing.

Early "Bolting"

OHIO—Many growers were puzzled this past summer by premature seed stalk formation, or "bolting." Bolting is due primarily to unfavorable growing conditions. Low temperatures followed by favorable growing temperatures, excessively hot



Pennsylvania's Potato Blossom Queen for 1956 is Donna Lee Brumbaugh, of Martinsburg, Blair County. Donna was selected during the recent field days of Pennsylvania Co-operative Potato Growers, Inc., held annually at Potato City.

weather, and long days are some of the causes.

Different conditions affect different crops. Carrots will bolt if exposed to tem-

peratures between 40° and 50° F. for 15 continuous days. Celery will go to seed prematurely if plants are subjected to temperatures between 40° and 50° F., followed by higher temperatures when growth is resumed. Cabbage will bolt when low temperatures are followed by high summer temperatures.—E. C. Wittmeyer, Ohio State U., Columbus.

Vacuum-cooled Lettuce

NEW MEXICO—Two new methods, field packing of lettuce and installation of a vacuum tube cooling plant, are reducing costs and raising the quality of lettuce in the Las Cruces area of the Mesilla Valley.

According to W. A. Wunsch, supervisor of the Fruit and Vegetable Service at New Mexico A & M College, these modern methods of handling the crop could influence growers to increase production in the valley from the 215 acres now being grown. Production from about 1000 acres would attract commission houses and other buyers.

Three cuttings to a crop are obtained, and two crops, spring and fall, are grown. The yield has been 800 cartons to an acre for the first cutting.

(Continued on page 25)

Know Your...

VEGETABLE SEEDS

By VICTOR R. BOSWELL
U.S. Department of Agriculture

SALSIFY

THE mature seed head of salsify or oyster plant suggests a glorified mature seed head of dandelion. The "seed" and its feathery "wings" are many times as large as those of dandelion. The large flower heads of salsify are highly ornamental in the morning—beautiful both in structure and in their purplish color—but are usually tightly closed by noon. The so-called seed is a simple one-seeded fruit called an achene.

Salsify is a very minor vegetable. A mere truckload of seed, and not a very big truckload at that, is enough to meet our present annual demand. A few small patches totaling 10 to 12 acres produce the 10,000 to 12,000 pounds of seed required annually. The seeds are grown in southern California and Arizona.

Salsify is a biennial, producing a long white storage root and a cluster of linear leaves the first season. The root and the crown are quite hardy and can be left in place in the field overwinter, even in cold climates. In the second season the flower stalk rises to a height of 3 feet or more.

Since the flowering and maturing of seed in a single planting extend over a period of weeks, it is common practice to go over the seed field repeatedly, harvesting the seed heads by hand as they reach maturity



and before the seed is blown from the head by the wind. The big "balls" of seed and fluff are put into bags as they are picked, after which they are thoroughly dried and then threshed and cleaned.

CALENDAR MEETINGS

Nov. 27-30
America, 401
Mad. Gran
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Ave. N.W.,

Dec. 4-6
Growers Assn.
Purdue U.
Lafayette.

Dec. 6-7
annual meet-
—Gordon W.

Dec. 10-11
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City.—C. L.
A. Ames.

Dec. 10-11
Association
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Hall, Amherst.

Dec. 13-14
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Dec. 13-14
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Jan. 15-16
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city Park.

Jan. 17-18
course on r
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Cruces.

Jan. 20-21
Statler Hill
headquarters

Jan. 21-22
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R. F. Fletch

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Jan. 28-31
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DECEMBER,

CALENDAR OF COMING MEETINGS AND EXHIBITS

Nov. 27-30—Vegetable Growers Association of America, 48th annual convention, Hotel Pantlind, Grand Rapids, Mich.—Joseph S. Shelly, Sec'y, 628 Mills Bldg., 17th and Pennsylvania Ave. N.W., Washington 6, D.C.

Dec. 4—Greenhouse section, Indiana Vegetable Growers Association meeting, Horticulture Dept., Purdue U.—F. C. Gaylord, Sec'y, Purdue U., Lafayette.

Dec. 6-7—Oregon State Horticultural Society annual meeting, Oregon State College, Corvallis.—Gordon Walker, Pres., Independence.

Dec. 10-11—Iowa State Vegetable Growers' Association annual meeting, Hotel Hanford, Mason City.—C. L. Fitch, Sec'y, P. O. Box 421, Station A, Ames.

Dec. 10-11—National Junior Vegetable Growers Association 22nd annual convention, Atlanta Biltmore Hotel, Atlanta, Ga.—Headquarters: French Hall, Amherst, Mass.

Dec. 12—Southern Minnesota Vegetable Growers Association annual meeting, Armory, Albert Lea.—Jual E. Nelson, Sec'y, Albert Lea.

Dec. 13-14—Kansas State Horticultural Society and Kansas Sweet Potato Association annual meetings, Manhattan.—William G. Amstein, Sec'y, Manhattan.

Jan. 3-5—New York State Vegetable Growers Association and Empire State Potato Club, joint meeting, Hotel Van Curler, Schenectady.—W. B. Giddings, Sec'y, Baldwinsville.

Jan. 9-10—Connecticut Vegetable Growers' Association 44th annual meeting, Restland Farms, Northford. New Haven growers in charge.—Frank W. Roberts, Sec'y, Maple Shade Rd., Middletown.

Jan. 10-12—Northeastern Weed Control Conference, 11th annual meeting, Sheraton-McAlpin Hotel, New York City.—E. M. Rahn, Dept. of Hort., U. of Delaware, Newark.

Jan. 15—Pennsylvania Vegetable Growers Association meeting, State Farm Show, Harrisburg.—R. F. Fletcher, Sec'y, Penn. State U., University Park.

Jan. 17-18—Vegetable and fruit growers short course on marketing, soil fertility, and insect control, New Mexico A & M College, State College.—T. E. Raynor, 1801 Bellamah Dr., Las Cruces.

Jan. 20-24—National Potato Chip Institute, Statler Hilton Hotel, Dallas, Tex.—Institute headquarters: 946 Hanna Bldg., Cleveland, O.

Jan. 21-22—Pennsylvania Vegetable Growers Association conference, Nittany Lion Inn, Pennsylvania State University, University Park.—R. F. Fletcher, Sec'y, University Park.

Jan. 21-26—New Jersey Farmers Week, Trenton.—Fred W. Jackson, Dir., Div. of Information, Dept. of Agriculture, Trenton 25.

Jan. 28-31—United Fresh Fruit & Vegetable Association annual meeting, Benjamin Franklin Hotel, Philadelphia, Pa.—Association headquarters: 777 14th St., N.W., Washington 5, D. C.

Feb. 4-4—Ohio Vegetable and Potato Growers Association, 42nd annual meeting, Netherland-Hilton Hotel, Cincinnati.—E. C. Wittmeyer, 210 Horticulture Bldg., Ohio State U., Columbus.

Feb. 4-9—Food Processors' Workshop, University of Maryland, College Park.—A. A. Duncan, Ext. Veg. Crops Specialist, College Park.

A NEW TOMATO

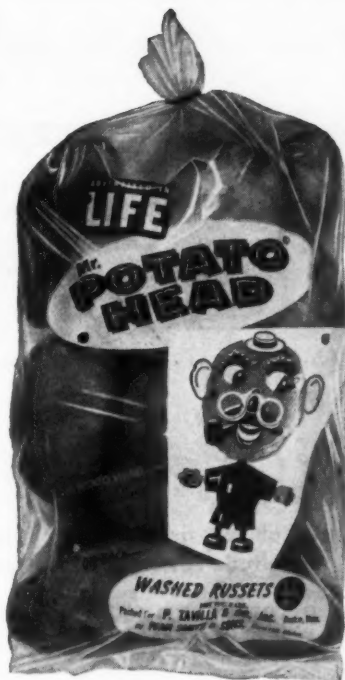
A HIGH-YIELDING, fusarium-wilt-resistant variety called Roma has been developed by the USDA.

Roma is similar in shape to so-called "plum" tomatoes. The plants grow in size suitable for planting 3 to 4 feet apart. Fruits grow in clusters of 3 to 5, mature to a length of 2 to 2½ inches and diameter of 1¼ to 1¾ inches. They have fleshy walls, small seed cells, and bright red pulp with high total solids.

Roma was developed by William S. Porte at the Agricultural Research Center, Beltsville, Md.

There should be enough seed of Roma to supply growers' demands next spring.

DECEMBER, 1954



a good head selects VISQUEEN film

Fast-moving Joe Lazarus, President of Cello-Masters Incorporated, picked a winner when he tied in his stock VISQUEEN film potato bags with LIFE-advertised "Mr. Potato Head" toys. Bags carry a printed coupon for a self-liquidating premium that boosts potato sales and gives even small stores an exciting promotion feature.

"Naturally we specified VISQUEEN," says Mr. Lazarus, "because VISQUEEN film bags stand up under rough usage. The unexcelled ink adhesion of VISQUEEN film permits us to display the premium feature in full colors."

6 reasons why

VISQUEEN film

T. M.

means better packaging at lower cost to you!

Superior strength to eliminate package breakage. Matchless uniformity for better machineability. Unexcelled ink adhesion for better printing. Economy to reduce packaging costs as much as 50%. Stiffness and body for faster filling and closing. Years of experience in producing a superior quality packaging film.

A converter of VISQUEEN film will help you get better packaging.

Important! VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. Only VISQUEEN has the benefit of research and resources of

THE VISKING CORPORATION

World's largest producers of polyethylene sheeting and tubing

Plastics Division, P.O. Box 1410
Terre Haute, Indiana

IN CANADA: VISKING LIMITED, LINDSAY, ONTARIO • IN ENGLAND: BRITISH VISQUEEN LIMITED, STEVENAGE



FOR EARLIER CROPS
USE

Jiffy-Pots

The Revolutionary New
Plant Growing Containers



This remarkable new pot is composed of 75% peat and 25% wood fiber and impregnated with 1.3% nitrogen, 1% phosphorus, and 1.6% potash.

Roots grow right through the walls, permitting transplanting outside without removing the Jiffy-Pots. They are inexpensive . . . lightweight . . . long lasting . . . provide excellent root aeration . . . need less watering . . . and save considerable labor.

The most striking feature of Jiffy-Pots is the fast premium growth which they support.

PRICES

2 1/4 INCH	Per 1000
3,000 to 18,000 (3,000 \$21.75).....	\$7.25
21,000 to 72,000.....	6.75
75,000 up	6.50
Sold in cases of 3,000. Minimum order 3,000. 35 lbs. per case.	
3 INCH	Per 1000
1,500 to 9,000 (1,500 \$19.88).....	\$13.25
10,500 to 49,500.....	12.25
51,000 up	11.25
Sold in cases of 1,500. Minimum order 1,500. 35 lbs. per case.	

F.O.B. our warehouse in West Chicago, Ill., and Bayonne, New Jersey.

We also can supply veneer plant bands and Bird Vita-Bands. Write for prices.



Tomatoes are an excellent subject for Jiffy-Pots. Planted out without any growth check, they will produce earlier.

George Ball
INC.
WEST CHICAGO
ILLINOIS

Dept. VI

Phone 299



Two methods of applying soil fumigants: the garden tractor and the hand injector.

Operation Nematode!

Oklahoma growers are fumigating their soil and planting nematode-resistant varieties in their war against this pest

By BERNARD LEMERT

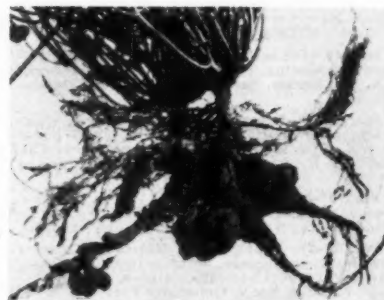
A BATTLE is being waged in Oklahoma to rout out an insidious underground enemy—nematodes.

This tiny parasitic eel-like worm swarms through the soil ravaging \$400 million to \$500 million annually in our major vegetable and food-producing crops. It causes long rows of vegetables to wilt and discolor and become unproductive.

Researchers have found several species of the organism, but the one that galls and swells the roots of potatoes, cucumbers, tomatoes, watermelons, beans, and many other vegetables is known as the "root-knot" nematode.

To date chemical fumigation methods have given the best control of the root-knot nematode. Soil fumigants under study and in use are ethylene dibromide, D-D, and Nemagon.

"Even though some are safer than



Galls and swelling on lima bean roots caused by root-knot nematodes. This common species of nematode attacks many vegetables, notably potatoes, cucumbers, tomatoes, watermelons, beans.

others, all the chemicals should be applied about two weeks previous to planting," Dr. F. B. Struble, Oklahoma A & M plant pathologist, states.

Annual control only can be expected of soil fumigants, Dr. Struble points out. Cost of chemical control is about \$12 an acre, he states.

Because of their long-lived toxicity soil drenches, such as the new V-C 13, are being tried. They destroy nematodes that emerge from the roots into the soil.

The breeding of resistant varieties, says Dr. H. B. Cordner, Oklahoma A & M horticulturist, has come to be one of the greatest possibilities for keeping this parasite under control.

Two new varieties showing resistance to nematode attack have already been developed at Oklahoma A & M. They are Nemagreen lima bean and Nemagold sweetpotato. **THE END.**

Ethylene dibromide is manufactured by Dow Chemical Co., Midland, Mich.; D-D and Nemagon by Shell Chemical Co., 460 Park Ave., New York 22, N.Y.; V-C 13 by Virginia-Carolina Chemical Co., 401 E. Main St., Richmond, Va.



Fumigating soil for nematode control at Oklahoma A. & M. College. Soil is tilled as for a seedbed, and fumigant is applied in the spring when soil temperature reaches 60° F. Fumigant is placed 8 to 10 inches deep in ridges before planting. One tank is ordinarily used with this equipment; three shown here are experimental.

AMERICAN VEGETABLE GROWER

Answering Your QUESTIONS

Don't let your questions go unanswered. Whether large or small, send them with a three-cent stamp for early reply to Questions Editor, AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

ELUSIVE LONG ISLAND BEAUTY

In your melon issue I noticed a melon known as Long Island Beauty. Would like to know where such seed may be bought.—Pennsylvania.

Ever since our special melon issue came out in September, we have been searching for a source of seed for the elusive Long Island Beauty muskmelon. Many growers have written us and we are sorry to report that seed is not available. The Long Island Beauty is a variety, well known in its day, that is no longer being planted since newer and better varieties have taken its place.

BOOKS ON VEGETABLE GROWING

Do you have any publications pertaining to planting of vegetables?—Louisiana.

The following books are available from our Book Department: *Vegetable Growing* by Knott, \$5.00; *Vegetable Growing* by Shoemaker, \$6.00; and *Vegetable Production and Marketing* by Work and Carew, \$4.75.

HOW TO STERILIZE SOIL

Will you please tell us how you would advise sterilizing soil for seeds and seedlings?—Michigan.

"Can You Afford Not to Sterilize?" an article by Kamp and Fosler, tells how to construct a sterilizing box and contains considerable information on soil sterilization. Tear sheets of this story, which appeared in our March, 1956, issue, are being sent to our reader.

VGAA REPORTS

On page 16 of the October issue of your magazine, there is a notation that Orville Walker will be a speaker at the VGAA convention. I am very much interested in Mr. Walker's subject. If his talk will be printed in any form, I would appreciate getting a copy.—Texas.

All the papers given at the Vegetable Growers Association of America annual convention held November 27-30 at Grand Rapids, Mich., will be published in the annual proceedings of the association which are free to members. Membership dues are \$10.00 for growers having 80 acres or less, greenhouse under 1 acre; \$25.00 for growers having 80-500 acres, greenhouse 1 acre or over; and \$100.00 for growers having over 500 acres.

Non-growers are also invited to support the association's activities. They are eligible for the "trade" or "educational" memberships carrying all the membership privileges but no voting rights.

Mail your check for membership to Joseph Shelly, Secretary, Vegetable Growers Association of America, 528 Mills Bldg., 17th & Pennsylvania, N. W., Washington, D. C.

GIBBERELIC ACID

Is there anyone making gibberellic acid yet and will it work on cucumbers? Will it be on the market next year?—New York.

Look for a full report on gibberellic acid and its marvelous growth promoting possibilities in our coming February issue.

ALL GOLD SWEETPOTATO

Would like to know where I could buy All Gold sweetpotato plants, (an Oklahoma A & M College introduction). They were described in the March issue. Would be grateful if you could advise me.—Kentucky.

Try C. & L. Leist, 1218 Victory Dr., St. Louis 23, Mo.

DECEMBER, 1956

New TRACTOR-EASY Chore System Makes Material Handling a Snap



Hydraulic loader for CA lifts 8 feet high, yet low clearance lets you go wherever tractor can go. Operates with tractor's two-clutch power control.

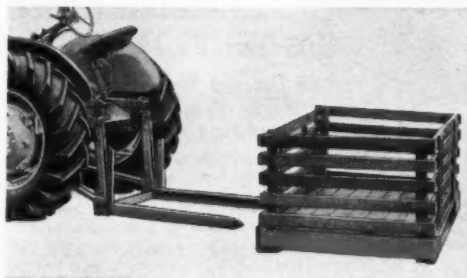
If you could weigh all the materials that are lifted or carried in your vegetable operation each year, they would probably run to hundreds of tons.

Now, Allis-Chalmers *Engineering in Action* brings you a practical, cost-saving tractor chore system to shoulder this load. Easy-on, easy-off chore tools for CA or WD-45 Tractors have brought an end to heavy lifting and lugging on thousands of acres.

A minute at the wheel of an Allis-Chalmers tractor with any one of these handy low-cost, quick-hitch tools will demonstrate the ease and value of Allis-Chalmers tractor choring on your farm. Ask your dealer about these and other material handling attachments for Allis-Chalmers tractors.

ALLIS-CHALMERS, FARM EQUIPMENT DIVISION, MILWAUKEE 1, WISCONSIN

Blade angles, reverses and tilts to handle ditching, scraping and filling jobs. Quick-mounted with SNAP-COUPLER hitch. Models for both WD-45 and CA Tractors.



Carrier for home-built platform or crate, mounts with SNAP-COUPLER hitch. Lifts hydraulically. Available for both WD-45 and CA Tractors.

SNAP-COUPLER is an Allis-Chalmers trademark.

ALLIS-CHALMERS



Onion, carrot, red beet growers—and also growers of potatoes on muck soil. Decide to attend the Vegetable Growers Association of America convention at Grand Rapids. Visit our booth and learn about the Bruner great vegetable harvester, etc.

Let us tell you about our latest equipment—Self-Propelled Harvesters, high capacity 16 roller outfits, and set-ups to handle pallets and to bulk load.

Decide to learn about the Bruner equipment. Harvest onions, etc. in one operation. Do a clean job of topping—no injury—high capacity.

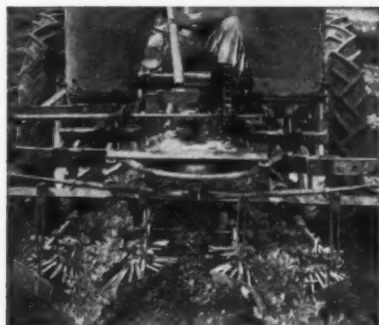
We have to get in touch with you NOW in order to give timely delivery for 1957 season. Send for further information on Bruner Vegetable Harvesters, Onion and Red Beet Wind-rows and Rotary Weeders.

Farm Implement Specialty Sales Co.
22516 Hoover Rd., VAN DYKE, MICH.

*The Newest Method in
Weed Control*

THE BUDDINGH INROW WEEDER

Cut Your Weeding Cost



Growers who are using this weeder claim it to be the best ever, for cutting weeding cost.

One unit will do the work equal to hand labor of eight to ten men, practically eliminating all hoeing or hand weeding. Can be used in celery, cabbage, sweet corn, beans, strawberries, set onions, asparagus, mint, peanuts, gladiolus and other planted crops.

Works excellently on bedded crops and can also be set up for multiple row work. Cultivates around each plant at speeds of 4 to 6 miles per hour without injury to the crop.

Write for complete information today.

BUDDINGH INROW WEEDER CO.
Caledonia, Michigan

HARRIS SEEDS



**Harris Famous
MORETON HYBRID**

The Great Early Tomato

**Large Size and Wonderful Flavor
Meaty, Firm, Red Fruit
Early and Long Harvest Period**

These are the qualities that have made Moreton Hybrid the first choice of thousands from Maine to Louisiana. Once you have tried it, you will see why leading growers plant Moreton Hybrid in preference to all others.

1/16 oz., \$2.20; 1/8 oz., \$4.00; 1/4 oz., \$7.50;
1/2 oz., \$13.50; oz., \$25.00.

**WRITE FOR OUR FREE
MARKET GARDENERS & FLORISTS
WHOLESALE PRICE LIST**

JOSEPH HARRIS CO., INC.
73 Moreton Farm Rochester 11, N.Y.

RHUBARB—

**for the
early spring market**

**Plenty of fertilizer and
water is the rule for
growing rhubarb successfully**

By ELDON S. BANTA

TO grow a big yield of high-quality rhubarb out-of-doors you need to supply plants with plenty of water and fertility elements.

Heavy manuring of rhubarb plantings has been a common method of fertilizing in the past, with applications of as much as 40 tons per acre. With manure being less available today, mixed fertilizers are taking its place. Manure is good not only because it supplies mineral elements, but because it furnishes organic matter which holds moisture.

Fertilizer rates and analyses used on rhubarb vary from place to place. Where heavy rates of manure are used, some growers need apply only 600 to 800 pounds of superphosphate per acre in the spring. Others will find mixed fertilizers of 4-12-8 or 3-12-12 satisfactory in conjunction with manure applications. These can be applied either in the spring or right after harvest for good results.

In addition, some will find applications of a nitrogen fertilizer in the spring and after harvest a good supplement to the mixed fertilizer. Where no manure is used, rates of mixed fertilizers range between 1000 and 1500 pounds per acre. On small plantings this amounts to one-fourth to one-half pound per hill.

Mulching and Irrigation

Since rhubarb contains over 95% water, high yields are obtained only when sufficient water is available to the extensive root systems. Manuring and mulching are means of conserving available moisture. Soon after the ground freezes in the fall, some growers ridge the rows with a plow and mulch lightly. Shallow cultivation in early spring works this ridge down. Mulching before the hot, dry summer is also a common practice.

Rhubarb responds to supplemental irrigation. The number of applications will vary with the season and location. Each watering should be of long duration so that water will soak deep into the soil. Under most conditions in the East and Midwest three waterings are usually sufficient. The first goes on in early summer,

AMERICAN VEGETABLE GROWER

the second in autumn.

A great many are planted in the spring. The best established plants in the following months are mostly done apart, with some plants in holes for case, the 3 inches should be left loose.

Harvest

Harvesting rhubarb planting, be pulled vest can season of as stems size. Slight tw pulled over the har stalks are put then



Propagating in the fall from plow crowns into

and the All seed begin to

Yields acre per planting years. stored for perature humidity

Rhubarb to areas and win the earth

Two Donald naeus, Sunrise, side Giar

DECEMBER

the second in midsummer, and a third in autumn just before soils freeze up.

A great deal of rhubarb is fall-planted, the rest is done in early spring. Early fall is usually considered best because plants root well and establish themselves for a quick start the following spring. Planting is commonly done in rows about 4 feet apart, with plants spaced 3 feet apart. Some plow furrows, while others dig holes for planting. Whatever the case, the roots are set deep enough so that the top bud on the root lies about 3 inches under the surface. Soil should be firm around the roots, but left loose over the top.

Harvest the Second Year

Harvesting rhubarb from a new planting begins the second year from planting, and only a few stalks should be pulled then. The third-season harvest can extend for the full pulling season of six to eight weeks so long as stems (leaf petioles) are of good size. Stalks are pulled out with a slight twist, not cut. A planting is pulled over about once a week during the harvest season. Sufficient leaf stalks are left to feed the crowns and put them in condition for the winter



Propagating rhubarb from established plantings in the fall. This grower breaks roots loose from plow furrow with a hoe fork, will divide crowns into as many pieces as there are buds.

and the following season's harvest. All seed stalks are removed as they begin to form.

Yields average around 2 tons per acre per year with good commercial plantings lasting for about seven years. After harvest stalks can be stored for two or three weeks at temperatures of 32° F. and a relative humidity of 90 to 95%.

Rhubarb culture is limited largely to areas where summers are humid and winters are quite cold, freezing the earth to a depth of 3 to 4 inches.

Two outstanding varieties are MacDonald and Ruby. Others are Linnaeus, Victoria, Valentine, Early Sunrise, Sutton's Seedless, and Riverside Giant.

THE END.

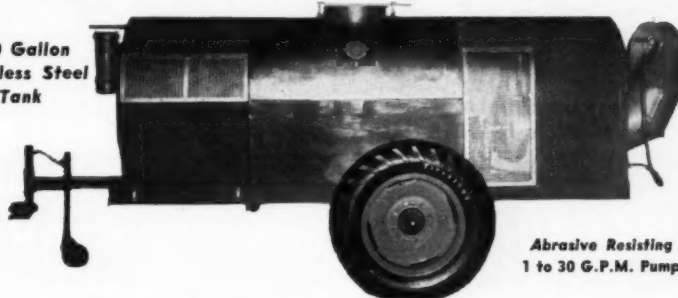
DECEMBER, 1956

THE PROOF IS IN THE USE

A Maine Potato Grower Reports

Although this is my first year to use a "Buffalo Turbine Sprayer" on my 385 acres of potatoes, I am sold on this rig. We had perfect control and covered 20 acres an hour using only 20 gallons per acre. We feel that "Man Hours Saved" will quickly pay for the machine.

200 Gallon Stainless Steel Tank



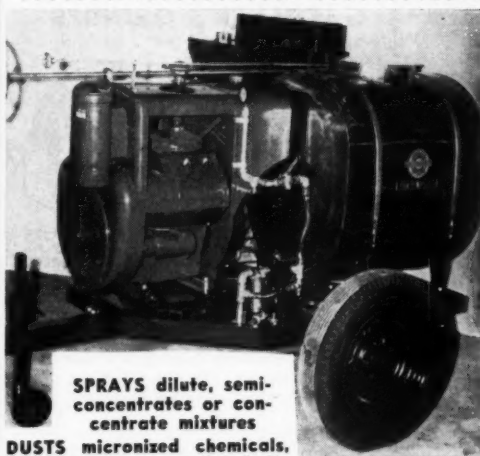
Abrasive Resisting 1 to 30 G.P.M. Pump

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A Big Pennsylvania Vegetable Grower Reports

This is the second year of use for our Buffalo Turbine Sprayer and our second year of excellent control in ALL of our crops. Tomatoes were blight free, Broccoli, Cauliflower, and Cabbage were the cleanest and our many acres of sweet corn picked over 95% without any signs of earworm.



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DUSTS micronized chemicals, regular dusts or pellet baits
DISTRIBUTES Pellet or Granular Insecticides or Fertilizers

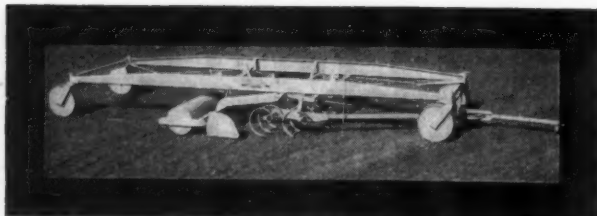
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IMPERIAL-COACHELLA

(Continued from page 9)

miles away it may drop to 20° F. Smudge pots—large space heaters which burn low-grade fuel—are also used between the rows of paper. One grower even utilizes hot water (120° F.) from his irrigation well to irrigate his fields of eggplant on frosty nights. The production of these crops centers around Niland, Coachella, and Coachella.

The same techniques are used to start tomatoes, peppers, and summer squash for spring production in both valleys. These crops are field-seeded in January and February under the brush which accumulates enough heat for seed germination and plant growth. The harvest of these crops starts in May and continues through June.

Early Melons

The Imperial Valley is one of the nation's leading areas in the production of muskmelons. The first melons appearing on the eastern grocer's shelf in the spring are shipped from the El Centro-Brawley and Blythe areas. Some 12,000 to 13,000 acres are raised every year. About half of this crop is seeded under hotcaps in February, and harvest begins in May. The use of hotcaps is necessary to provide enough heat for germination. The Hale's Best types such as Powdery Mildew Resistant 45 and Sulfur Resistant 91 predominate.

About 8,000 acres of watermelons are seeded in the same manner in early March with harvest starting in early June.

Sweet corn is an important late fall and early spring crop in the Coachella Valley. It is marketed mostly in West Coast markets. The "T" strain of Golden Cross Bantam is the favorite variety. The corn is usually picked in the early morning, cooled in ice water tanks, and packed in snow ice before loading in refrigerated trucks.

Both pole and bush-type snap beans are being grown near Indio more extensively in recent years. The invention of the mechanical pole driver and stringer a few years ago has contributed to the larger acreages of pole beans. The Blue Lake variety of pole bean is grown, while Wade is the favorite bush type. Yields of pole beans run as high as 6 tons per acre, almost three times that of bush types.

Asparagus acreage is increasing in both valleys because of displacement of vegetable acreages near Los Angeles due to housing developments. Some growers harvest two crops a year from their plantings.

AMERICAN VEGETABLE GROWER

Small cuttings are made in the fall before cold weather stops production and again in the spring. Dormancy is enforced by withholding water from the fern in midsummer. It is broken in the fall by irrigation.

Heat-resistant Crops

Certain heat-resistant crops such as sweetpotatoes and okra have become more important in recent years. These crops apparently suffer little from 120° temperatures. Sweetpotatoes are harvested for early fall market in September. Okra is picked for processing in midsummer.

Many special crops are grown in smaller acreages throughout the valley. Certain vegetable seed crops are raised in large quantities in these valleys. University of California scientists have found that lettuce seed matured in the high temperatures which prevail in the late spring germinate at higher soil temperatures than seed from cooler areas.

This helps eliminate troublesome high-temperature dormancy in the fall crops of this area. High temperatures also eliminate many disease problems which frequently plague vegetable seed growers. Suitable acreages of onion seed are

PLASTIC GREENHOUSE

Building a plastic greenhouse? A new Purdue University bulletin, "Vegetable Production in Plastic Greenhouses," discusses the construction of plastic greenhouses and tells how to grow vegetables in them. Written by M. O. Thomas, Leslie Hafen, and N. K. Ellis, Extension Bulletin 411 is available from the Agricultural Extension Service, Lafayette, Ind.

grown near El Centro. The low humidity enables the common storage of this notably short-lived seed for long periods.

The Indio-Coachella area ships 100 million tomato plants to the Central California canning production areas every year. The seeds are planted in narrow beds in January and February, sometimes under paper windbreaks, and are ready for pulling in mid-April to mid-May.

After pulling, the plants are taken to special packing plants where they are sorted and packed in lettuce crates with wet peat around the roots. The plants are given about twice as much room as eastern plants packed in hampers. They are loaded on trucks in the afternoon and arrive at the growing areas 500 miles away the next morning, where they are transplanted immediately.

Irrigation always leads to special and sometimes troublesome problems. Low-quality irrigation water requires special practices to insure satisfactory growth of any crop. Colorado River water contains about 2000 pounds of salt (mostly calcium carbonate) per acre-foot. Imperial

(Continued on page 20)

Scott-Urschel RED BEET and CARROT COMBINE



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Grand Rapids, Michigan
November 28-30

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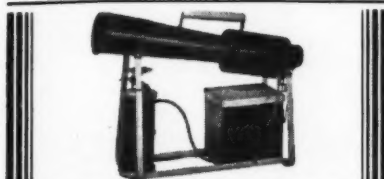
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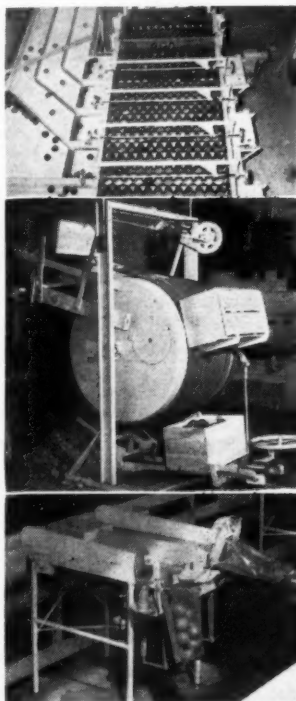
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IMPERIAL-COACHELLA

(Continued from page 19)

Valley soils, being formerly ocean bed, are inherently salty.

As this water is applied to the soil, salts are dissolved which accumulate on the soil surface. This accumulation frequently becomes so great that it slows or stops plant growth, especially that of sensitive vegetable crops. The soil must therefore be periodically leached to remove these salts. Thousands of acres are now being tile drained to aid this process.

The north-south orientation of the valley acts as a funnel for winds from the north. These winds frequently reach 70 miles per hour, causing damaging sandstorms. The blowing sand frequently abrades plants and cuts them off at the ground, so the use of windbreaks in sandy areas is mandatory. This blowing sand prevents the use of sandy loam soils for lettuce production because of sand in the heads. Windbreaks of many types are used. Growers in the Coachella Valley use palm fronds or strips of barley every few rows, while growers in the Imperial Valley sometimes rely on tamarack fencerows.

Fusarium wilt, a soil-borne organism attacking tomatoes, makes crop rotation a necessity. Successful growers in the Calipatria-Niland area insist they are running out of "new ground" for tomatoes. Several thousand acres of desert are reclaimed every year solely for one or two crops of tomatoes.

The shortage of irrigation water prevents the reclamation of thousands more acres of desert. The Colorado River is being taxed to the limit and Valley growers are now looking forward to the use of atomic power to reclaim sea water. In the meantime, a growing population, especially on the West Coast, promises to consume all the produce this Valley can grow. **THE END.**

NEW YEARBOOKS

A special feature in this year's issue of the **Tomato Yearbook**, edited again by Dr. John W. Carncross, Rutgers University College of Agriculture, are the names, addresses, and projects of leading authorities engaged in various phases of tomato research.

In the **Potato Yearbook** the informative article by Dr. Arnold H. Sparrow of Brookhaven National Laboratory on irradiation of potatoes to inhibit sprout growth will be of particular interest.

Copies are \$2.00 each and are available from American Tomato Yearbook or American Potato Yearbook, 8 Elm St., Westfield, N. J.

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WITLOOF CHICORY

(Continued from page 7)

are, of course, not necessary when the forcing is done in sheds. A week later the heat is turned on, when the beds have settled down, and the soil is brought to 65°F. Lower temperatures mean slower forcing, and higher temperatures mean inferior quality and flavor in the chicons.

In about three weeks the heads are 6 to 7 inches long and after the bed has been allowed to cool, they must be lifted carefully and snapped from the roots with a twist. They are not washed, as this is likely to cause opening and discoloration, nor are they even wiped with a cloth lest they be slightly bruised, but the outer, soil-stained leaves are stripped off. They are then sized, graded, and boxed. The discarded roots are used for stock feed, or sold to companies which roast and grind the chicory to powder for blending with coffee.

So much for the highly organized Belgian system. There are simpler methods of forcing, much depending on how soon it is desired to reach the market. One of the most successful of American growers was Herman Van Aken of Whitefish, Mont., who used no fuel heating at all. Instead, he covered his beds with 3½ feet of

straw and chaff, which was lightly hosed so as to wet the straw without having water run into the soil covering the roots. The resulting fermentation produced temperatures around 60°F., even in the severe winters of northern Montana.



HIGH-VITAMIN TOMATO

Doublerich, a new tomato variety from the University of New Hampshire, contains twice the vitamin C found in ordinary commercial varieties. The canned product of this tomato is also high in vitamin C. In a recent test, canned tomato juice from Doublerich had 55 milligrams of ascorbic acid six months later.

With unusually firm fruit and high resistance to cracking, Doublerich is medium in size and very early. Except for the first crop, it is medium in productivity. A rather open-growing plant, it might be subject to scald in some areas. The new variety was developed by Dr. A. F. Yeager, head of the department of horticulture.

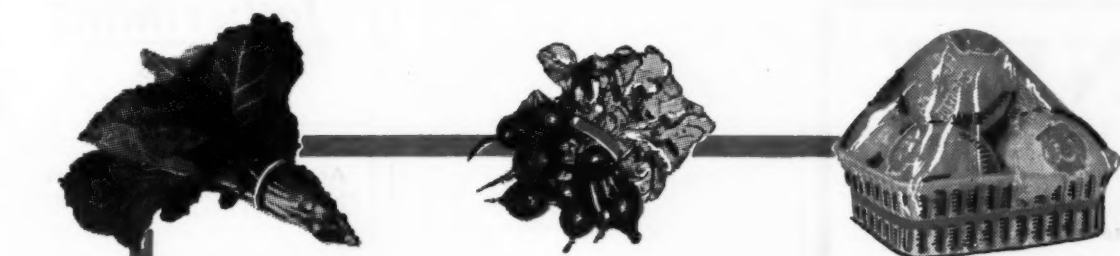
His beds were 5 feet wide in rough 60 x 20-foot sheds which protected them securely from rain or snow but little else. Good heads can actually be grown without any supplied heat, but the process is slow: if the roots are earthed over in the fall and insulated against frost, the heads will be ready in early spring. A cold frame can well be used for this.

Professional growers of Witloof give the closest attention to seed. Most of them raise their own, choosing for this purpose the very best heads from the forcing bed and setting them out in the field 2 to 3 feet apart.

When the plants are a foot high, the main stem of each is pinched off, which makes for the development of side branches, leading to a higher yield of seed with more uniform maturity. The seeds are small, running about 20,000 to the ounce, so that a few plants will provide a generous supply. Care is taken to avoid cross-pollination with wild chicory, so often found along roadsides and hedges. This should be eradicated, for complete safety, within a half-mile radius.

Growers buying seed must be sure to get it from a reliable source, specifying that only the genuine Witloof must be supplied and not the old Magdeburg, from which Witloof was developed.

THE END.



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Junior Growers Active In National Affairs

A FLORIDA demonstration team consisting of **Johnny Veldhuyzen, Jr.**, and **Walter Sullivan** represented NJVGA at the 6th annual conference and exposition of the Produce Packaging Association held recently at the Fountainbleu Hotel, Miami, Fla. Their demonstration covered tomato handling and the injuries, such as crushing, rubbing, and bruising, which results from improper handling. Conference attendants were impressed by the maturity of the presentation and its thoughtful delivery.

Other Representations

Clarence C. Chappell, Jr., member of the Junior Executive Committee from Belvidere, N. C., was the official representative of the NJVGA at the national convention of the American Institute of Co-operation, recently held at North Carolina State College, Raleigh. Clarence served on a panel with 12 other leaders of rural youth organizations. They discussed "Rural Youth Serves Agriculture."

The busy president of NJVGA, **Jack Armstrong**, of Springfield, Ill., keeps on the move. Among other representations he attended the National Student Body Presidents' Conference with delegates from all over the country.

Beverly Bishop, a former officer of NJVGA from Sherwood, Wis., has completed a five-month visit to the Netherlands as one of the 130 farm youth from 36 states who were chosen as International Farm Youth Exchange delegates.

Strawberry Project

Small fruits are new in the NJVGA program this year and are also a new project for two sisters in Tompkins County, New York, **Sarah** and **Jean Pratt**.

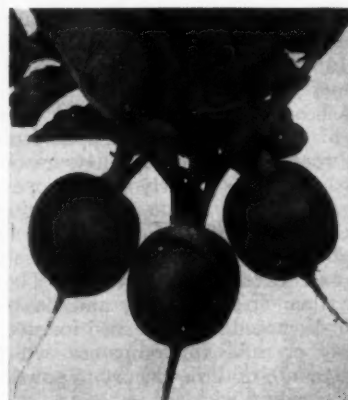
These members are growing several varieties in the hill system. The plants are set 12" x 12" with 2-, 3-, or 4-row beds separated by a picking alley. The Pratt girls have 4-row beds. All runners are kept off and only the mother plant produces fruit. Experiments in New York in 1955 showed that yields per acre were three to four times greater using this method over the matted row system.

Sarah and Jean planted one acre (32,000 plants) in late spring of this

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year. One large section (100 x 16) was fumigated with Dowfume MC-2. Dr. Raymond Sheldrake, Jr., of Cornell, co-operated in the project. Other chemical weed control practices are being tried, so the girls are getting excellent experience in the use of these and other cultural practices.

ANNUAL CONVENTION

The National Junior Vegetable Growers Association holds its 22nd annual convention at the Atlanta-Biltmore Hotel, Atlanta, Ga., December 9-13. Details appeared in the October issue of *American Vegetable Grower*.

In addition, there will be special entertainment features contributed by Georgia Power, Southern Bell Telephone, and Sears Foundation.

New York Officers

Officers of the New York association for 1956-57 are: **Ann Marie Behling**, president; **Otis Young**, 1st vice-president; **Betty Scott**, 2nd vice-president; **Sarah Pratt**, secretary-treasurer; **Helen Randolph** and **John Porter**, representatives at large; and **Robert Herner**, news reporter.

RYUSA Conference

Betty Lou King, of East Lansing, Mich., and **Dave Ruesink**, of Adrian, Mich., recently attended the Rural Youth of America Conference at Madison, Wis. Both were active in the program.

The first morning Dave Ruesink presented the Eye-Opener followed by a panel including Betty Lou King on how the changing world affects our individual lives. The closing thought was "Achievement is seldom out of proportion to our personal ambition."

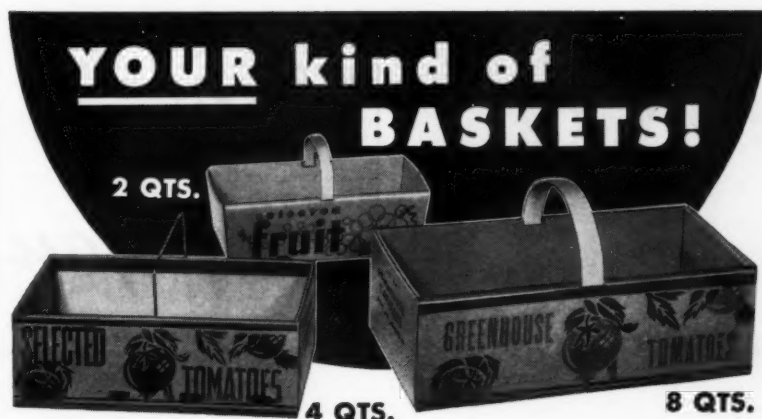
Each state nominated for the national RYUSA offices and Dave was Michigan's nomination for first vice-president.



Officers of Mississippi NJVGA for 1956-57. Front, left to right: Ellouise Fair, president; Dorothy Brock, vice-president; Annie Sue Eitel, secretary. Back, left to right: Nancy Norris, Lorraine Smith, Thomas Hill, district directors. The Northeast District Director, Jane Fairchild, is not in picture.—Chesley Hines, State College, Miss.



A bi-monthly page for the younger generation of vegetable growers and their national organization, the National Junior Vegetable Growers Association. For information write Grant B. Snyder, French Hall, University of Massachusetts, Amherst, Mass.



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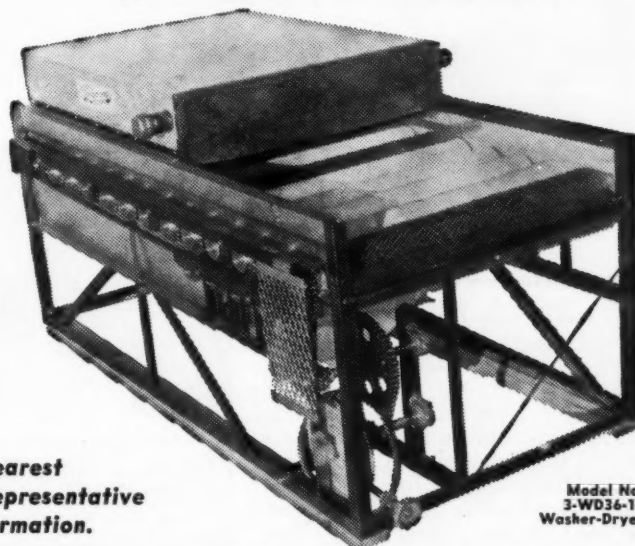
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Model No.
3-WD36-14
Washer-Dryer

Manufacturing A Complete Line of Potato Machinery

Factory Stocks at:
Grand Forks, N.D.
Presque Isle, Me.
Six Lakes, Mich.
Tule Lake, Calif.

LOCKWOOD GRADERS

Gering, Nebr.

DEALERS IN MOST
PRINCIPAL POTATO AREAS

Factory Stocks at:
Monte Vista, Colo.
Rupert, Idaho
Antigo, Wisc.
Summerdale, Ala.



High-yielding Lettuce

A leading Ohio grower has had remarkable success with the new Burpeeana lettuce. In carefully controlled tests under glass the new variety produced a 25% greater yield over Bibb. The leaves are dark green, crisp, and tender. A sweet flavor makes it sought after in the market, and what's more, this new lettuce is less subject to tipburn. The new variety has performed exceptionally well under glass and is ideal for outside planting in the cool weather of spring or fall. Seeds are available for testing purposes at 1 ounce for \$1.00, ¼ pound for \$3.00 and 1 pound for \$9.00. Why not try some—write W. Atlee Burpee Co., 967 Burpee Bldg., Philadelphia 32, Pa., or Clinton, Iowa, or Riverside, Calif. Be sure to say you saw this in **AMERICAN VEGETABLE GROWER**.



Planetiller—New Features

Growers who have used the new tiller pictured above tell me that it does a far better job than anything they have ever used. The new tiller not only tills the ground, but a 14½-inch roller mounted behind the tines presses down the soil as a second step in fertilizing and seeding. Equipped with offset handles, the new tiller can be used by the grower from either side of the machine. Thus, newly tilled and rolled soil is not tramped. The offset handles make it a lot easier to work around trees, shrubs, and other restricted areas. The new tiller is equipped with 2¾ h.p. engine and weighs 150 pounds. You'll want all

New for You

the information on the new machine—just write H. W. Laros, S. L. Allen & Co., 5th and Glenwood Ave., Philadelphia 40, Pa.

Phosdrin—No Residue

A new phosphate insecticide will be made available to growers on an experimental basis. Ideal for the vegetable grower, the new chemical not only protects crops during the growing season but can be used from one to three days prior to harvest without leaving harmful residue. In actual field tests the new insecticide is highly effective against a wide variety of insects. To date the Food and Drug Administration has established a temporary tolerance permitting experimental use of Phosdrin on 23 vegetable and fruit crops. It can't be used on forage crops until satisfactory residue data are completed. The new wonder insecticide is made by Shell Chemical Corp., and if you would like to get more information, just write Jack Lewis, Shell Chemical Corp., 460 Park Ave., New York 22, N. Y.



1956 STAR FARMER OF AMERICA

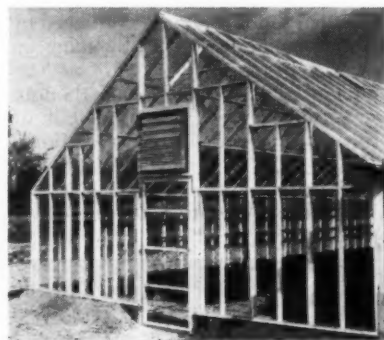
Raymond C. Firestone congratulates Wesley H. Patrick, 21-year-old, Quitman, Ga., youth who was named the 1956 Star Farmer of America during colorful ceremonies at the 29th annual convention of the Future Farmers of America at Kansas City, Mo. Young Patrick shared the spotlight with three Regional Star Farmers (left to right beside him): Robert L. Worley, 20, Mercer, Pa.; Larry Lust, 21, Newton, Iowa; and Freddy North, 19, Eloy, Ariz. Firestone, who is well-known to vegetable growers as executive vice-president of the Firestone Tire & Rubber Co., is past chairman of the sponsoring committee of the Future Farmers of America Foundation, Inc. The Star Farmer award spotlights the achievements of the farm youth of our nation. Whether they're vegetable growers or not doesn't matter—it's great to see them make such great strides.



Sugar Baby Watermelon

A new, small-sized watermelon, a little larger than New Hampshire Midget but small enough to fit in the icebox, Sugar Baby averages about 8 inches in diameter and weighs 8 to 10 pounds. The fruits are nearly round in shape, with rind of dark green color indistinctly marked with darker striping. The rind is hard and tougher than other icebox types. Sugar Baby has been rated better than any other small melon for flavor and texture and is less seedy. It's easy to get full details—just write Bill Liddell, Associated Seed Growers, Inc., P. O. Box 406, New Haven, Conn.

Be sure to mention **AMERICAN VEGETABLE GROWER** when writing manufacturers.



Economical Greenhouses

I have been hearing a great deal about a new plastic material available for greenhouse construction. Called Amilco Poly-Flex II, it has superior qualities for retaining heat and withstanding sunlight, and can be coated with either water-base materials for summer shading or the more permanent linseed and tung oil base coatings. Pictured above is the greenhouse recently built by grower Walter Engle of Columbus, Ohio, and covered with Poly-Flex II. This low-cost, shatter-proof plastic can also be used to provide economical insulation inside existing greenhouses, as well as for cold frames and storm windows. Why not write X. S. Smith Inc., Red Bank, N. J., for full information on prices and construction methods.

AMERICAN VEGETABLE GROWER

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OPPORTUNITY ADS

Only 25c a word for one-time insertion; 20c a word for two-time insertion; 15c a word for four-time insertion—CASH WITH ORDER. Count each initial and whole number as one word. Copy must be in first of month preceding date of issue. ADDRESS: AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

BOOKS

THE HOW-TO BOOK ON STRAWBERRIES. The layman's primer, the professional's reference and everyone's factual guide to more and better strawberries. \$1.50. AMERICAN VEGETABLE GROWER, Box 107, Willoughby, Ohio.

TOMATO GROWERS—JUST PUBLISHED 1956 American Tomato Yearbook. Crammed with important facts. Send \$2.00. Complete volume 1950-56, \$8.00. AMERICAN TOMATO YEARBOOK, Box 3, 8 Elm Street, Westfield, New Jersey.

SEND TODAY FOR EXCELLENT LIST OF BOOKS of interest to leading vegetable growers. Enclose 5c in stamps to cover mailing costs. MACFARLAND COMPANY, Box 142-A, Westfield, New Jersey.

BUSINESS OPPORTUNITIES

\$100.00 WEEKLY RAISING EARTHWORMS! Free plan reveals how! OAKHAVEN-25, Cedar Hill, Texas.

FOR SALE—EQUIPMENT & SUPPLIES

TWO 1955 MODEL ALLIS CHALMERS "G's" with 4-row Ariens tillage tools, good as new. Used approximately 50 hours. Will sell at \$1,750.00 each. BART BERNACCHI, Fox Street, La Porte, Indiana.

HELP WANTED

WANTED—GROWERS IN INDIANA AND South Carolina to grow Ambrosia melons. More net profit per acre than any other agricultural product. Write LOUIS PROMOS, Leesburg, Virginia.

MISCELLANEOUS

SAWDUST AS A SOIL IMPROVER. ONLY three tons per acre applied annually with our treatment. Sawdust is mixed and spread. No waiting. For free illustrated folder and special trial offer, write FOREIGN PRODUCTS CORPORATION, 283 McKinley Avenue, East Orange, N.J.

PLANTS

AMAZING NEW HYBRID EVERBEARING strawberry "Ozark Beauty". Large fine flavor. Very productive. Originator WINN'S BERRY FARM, Westfork, Arkansas.

Holmes Seeds

Holmes Early Giant Hybrid Tomato

An F-1 hybrid bred for extra earliness and high yield. Large uniform fruit. Fine color and quality. For size and earliness it will be hard to beat.

1/16 oz. \$2.25; 1/8 oz. \$4.00; 1/4 oz. \$7.50; 1/2 oz. \$13.50; oz. \$25.00; 1 lb. \$85.00

Golden Acre Special Cabbage

Extra early. Heads are small averaging 2 1/2 pounds and of fine quality. This strain heads up solid right from the start. oz. \$7.75; 1/4 lb. \$2.20; 1 lb. \$6.50; 5 lbs. or more \$6.25 per pound.

Write for our Market Growers and Florist Wholesale Catalog. (Ready December 1st)

Holmes Seed Company
1017 Ninth St. S. W.
CANTON, OHIO

STATE NEWS

(Continued from page 12)

Field packing has eliminated use of packing sheds. The lettuce, packed in corrugated paper cartons, is hauled directly to the vacuum tube cooling plant where it is cooled to a minimum of 34° and then loaded on precooled railroad cars or trucks. The tube will cool 320 cartons—half a carload—at a time.

Wunsch said the lettuce has been grading top quality U. S. No. 1 hard. The variety grown is mostly Premier Great Lakes.



Vacuum tube cooling plant leased by Mesilla Valley Lettuce Growers, Inc., from Polar Vac Corp., Hereford, Texas. Pallet-load of cartoned lettuce at left is ready for the vacuum cooler.

The Mesilla Valley Lettuce Growers, Inc., contracted with an Arizona company for the harvest and leased the cooler from a Texas company.—T. E. Raynor.

More Tomatoes!

SOUTH CAROLINA—O. R. Bishop, of Frogmore, Beaufort County, used soil fumigants in his tomato field this past season. Result: an extra 100 bushels of tomatoes. Cost of applying the material, he says, was \$15 an acre.

HARRIS SEEDS



New JIFFY POTS

"Everything Grows Better in Jiffy Pots"

That's our experience with these new peat and fibre pots from Norway. They promote FASTER, STURDIER GROWTH of nearly all vegetable and flower plants. Roots grow through them easily—set out pot and all. Wonderful for melons, tomatoes, etc.

2 1/4 in. { Box of 1500 (18 lbs.)—\$11.50
Box of 3000 (35 lbs.)—21.75
3000 to 18,000 @ \$7.25 per M
21,000 or more @ \$6.75 per M

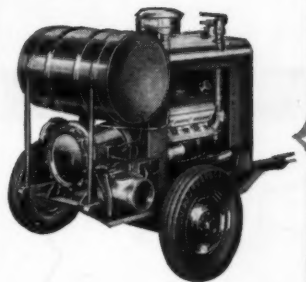
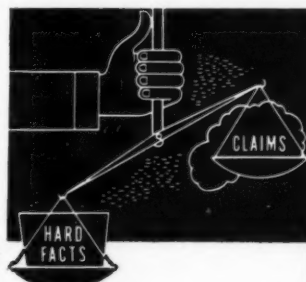
3 in. { Box of 750 (18 lbs.)—\$10.75
Box of 1500 (35 lbs.)—19.90
1500 to 9000 @ \$13.25 per M
10,500 or more @ \$12.25 per M

f.o.b. Rochester—net cash

Write for 1957 Market Growers and Florists Catalog

JOSEPH HARRIS CO., INC.

74 Moreton Farm Rochester 11, N.Y.



Available in many sizes. Air-cooled engines and water-cooled engines. GPM varies with lbs. pressure. Ratings from 80 GPM at 75 lbs. to 1250 GPM at 125 lbs., or 3000 GPM at 35-foot head.

COMPARE Irrigation PUMPS!

WEIGH THESE POINTS BEFORE YOU BUY—...

COMPARE — Gorman-Rupp pumps with all other makes and their performance under field conditions ...

EXCLUSIVE! — Gorman-Rupp Firsts! ...

- ★ **CHECK VALVE** (lever control) — Standard equipment on pump discharge. No gate valve needed. Valve threaded to receive 6" pipe.
- ★ **WEAR RING** — Renewable, surrounds impeller eye.
- ★ **SHAFT SEAL** — Located on suction side under vacuum. Lubricated by compression grease cup.
- ★ **END PLATE** — Removable, gives easy accessibility to impeller and shaft seal without disturbing pipe connections.

And! with Gorman-Rupp you get a complete irrigation pump package: pump, engine, exhaust priming device, strainer—ready to work

GORMAN-RUPP IRRIGATION PUMPS

GORMAN-RUPP ORIGINATES — OTHERS IMITATE

THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO

Potato Prospects

ON a per capita basis, the civilian population in the United States consumes potatoes at the rate of 100 pounds per year. If this sounds like a lot of potatoes, it should be remembered that in 1923 we were eating potatoes at the rate of 172 pounds per person—1¾ times the present rate.

On the bright side, the per capita consumption of processed potatoes has risen. In addition to the 100 pounds of spuds mentioned above, Americans consumed 19.6 pounds of processed potatoes. This compares with a bare 2.4 pounds consumed 15 years ago. The greatest increase has been in potato chips which have risen from 4,500,000 bushels in 1940 to 39,346,000 bushels in 1955. Frozen French fries and dehydrated potatoes, practically unknown in 1940, each used over 5 million bushels of potatoes in 1955.

Here is a breakdown of potato utilization in this country:

In 1955 the United States produced 378,420,000 bushels of potatoes and imported an additional

3,648,000 bushels, making a total supply of 382,068,000 bushels.

Of this total, 7,899,000 bushels were exported, 31,000,000 bushels were used for seed, 30,860,000 bushels were fed to livestock, and 20,752,000 bushels were made into starch. This left 291,557,000 bushels for food uses.

Of this amount 172,786,000 bushels were used in fresh form in homes and 65,000,000 bushels in restaurants. Processing took the remainder—some 53,771,000 bushels—as follows: flour, 1,800,000; dehydrated, 5,500,000; canned, 1,300,000; hash, stews, and soups, 800,000; frozen French fries, 5,025,000; potato chips, 39,346,000.

These figures show that potatoes still have a vital place in the American diet. The development of varieties with better "eating" quality; constantly improving handling methods; and new products for processing, combined with a stepped-up advertising and promotion campaign may even restore the potato to the throne that it occupied 35 years ago.

grower to increase his profits and at the same time eliminate part of the gamble of making a change in practice. The grower had soil samples taken on the 500 acres he intended to plant to potatoes and found that the soil tests showed a very high content of phosphorus and potash. He changed his fertilizer application to reduce the amounts of phosphorus and potash. This gave him a net saving of \$12 per acre.

To check his new practice, he fertilized a strip in each field with his former analysis and rate. By comparing the yields on the test strip with

QUOTE-OF-THE-MONTH

"Lettuce is like conversation: it must be fresh and crisp, so sparkling that you scarcely notice the bitter in it."

—Charles Dudley Warner

an equal area alongside, he found that his potato yields were as good where he reduced his phosphorus and potash applications as they were where he followed his former rate. He was sure then that the saving of around \$6000 on his fertilizer bill was sound.

The testing of the soil samples cost this grower about \$50, and it cost him perhaps \$25, Minges states, to run the strip-tests and to make yield comparisons at harvesttime.

Mistakes are costly. Unnecessary practices are costly. It is costly to fail to take advantage of new developments that save labor or materials. Simple tests conducted right on the farm where the practices are to be used can help to point out the efficient way and at the same time take a lot of the gamble out of farming.

Greater efficiency of production allows for a wider profit margin and puts the grower in a better competing position in the marketing of his crops. For these reasons progressive growers follow the practice of doing some testing of new ideas and practices as they are passed down from the colleges of agriculture and other research organizations.

Your county agricultural agent will gladly instruct you on how to run strip tests.

Coming Next Month

- New Varieties Worthy of Trial
- VGAA Convention Highlights
- Seedless Watermelons—A Roadside Market Attraction
- Plan Now to Avoid Crop Loss Next Summer

AMERICAN VEGETABLE GROWER

Plan NOW to Widen Your Profit Margin

A GOOD time to analyze production and marketing costs is at the end of the year.

To really determine whether your vegetable operation is as efficient as it should be, why not plan to make some simple tests in 1957? Such tests can help you keep abreast of new developments, improve your efficiency, and increase your profits.

Tests of this kind, as P. A. Minges of Cornell points out, can help you answer questions such as: Am I using too much or too little fertilizer? Am I using the right analysis of fertilizer? Is the new variety that my state college is recommending a better yielder under my conditions than the one I am using? Will a certain new herbicide control the weeds that are prevalent in my vegetable plantings?

In many cases, suggests Minges, one or two test strips through the field, using the new variety, the new chemical, or the new idea, can help the grower to decide whether the practice will prove profitable for him. Sometimes only two or three short rows or a small block in one corner of the field may be sufficient for the test.

Wherever possible, it is advisable to repeat the test at least once in each field, and the grower should plan to make a valid yield comparison. Often counting the sacks or containers from equal areas will suffice and will not take much time.

Minges cites an actual example of how strip-testing helped a potato

VEGETABLE CONVENTION



"Sweet potato my eye, you're not what you're tracked up to be."



Polyethylene cover is laid with tractor over strawberry plants. Small perforations provide drainage.



After film is laid, slits are cut with a razor, and the plants pulled through. Berries rarely touch the soil.



Far greater percentage of crop can now be sold. Another use of polyethylene film is for an air-seal when fumigating for weed control.

Polyethylene mulch cover **brings a big return**

Film made of BAKELITE Brand Polyethylene is bringing bigger profits to more and more growers of vegetables and other crops, through greater yields or a higher percentage of marketable produce.

For example, the experience of the Ishibashi Brothers, Torrance, Calif., with strawberries: "We have been saving as much as 75 to 85 per cent of the normal berry loss experienced when crops are grown and harvested directly on the ground. In this particular case, one berry saved on each plant is enough to pay for the polyethylene. We get a bigger crop to market at just the time when prices are at their premium."

Polyethylene film used by Ishibashi Brothers is made by **Extruders, Inc.**, Hawthorne, Cal.

DID YOU KNOW: Pipe made of BAKELITE Polyethylene pays off in profits when you install a bigger water system.

*It pays to use
materials made of*



BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation UCC 30 East 42nd Street, New York 17, N. Y.

The term BAKELITE and the Trefoil Symbol are registered trade-marks of UCC

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YOLO WONDER A by



*A superior strain of Yolo Wonder,
Developed by Asgrow to give you*

1. Higher percentage of blocky, four-lobed fruits
2. Same compact plant type
3. Same heavy, concentrated sets
4. Same resistance to tobacco mosaic



Yolo Wonder A comes in Vigorpak, for uniform seedling emergence, better early growth under rugged field conditions.

ASSOCIATED SEED GROWERS, Inc.

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